

## CLAIMS

- 1    1. A method of updating a common data source of data items and associations among said  
2    data items, wherein said common data source being accessible by more than one client  
3    storing copies of at least two of said data items and at least one association between at  
4    least two data items, and wherein at least one of said data items is a thought capable of  
5    being interactively modified, created, or interconnected by at least one of said clients,  
6    comprising:  
7         receiving a request from a client to modify a data item; and  
8         updating said data source according to said request.
  
- 1    2. The method of claim 1, further comprising:  
2         sending a confirmation of said updating to said client.
  
- 1    3. The method of claim 1, further comprising:  
2         modifying said copy of said data item.
  
- 1    4. The method of claim 1, in which said receiving step is done any time one of said more  
2    than one clients operates on said data item.
  
- 1    5. The method of claim 1, in which said receiving step is done any time one of said more  
2    than one clients modifies said data item.
  
- 1    6. The method of claim 1, in which said receiving step is done any time one of said more  
2    than one clients deletes said data item.
  
- 1    7. The method of claim 1, in which said receiving step is done any time one of said more  
2    than one clients activates a new thought.
  
- 1    8. The method of claim 1, in which said receiving step is done any time one of said more  
2    than one clients creates a new thought.

- 1    9. The method of claim 1, in which said receiving step is done any time one of said more  
2    than one clients creates a new interconnection between at least two of said thoughts.
- 1    10. The method of claim 1, in which said receiving step is done any time one of said more  
2    than one clients operates on said data item, and further comprising:  
3         barring other of said more than one clients from modifying said data item between  
4         the time the request is received from said client and the confirmation is sent to  
5         said client.
- 1    11. A method for a first client to update a common data source that is accessible by a second  
2    client, said common data source having data items and associations between data items,  
3    said first client storing a local version of said common data source, comprising:  
4         recording modifications made to said local version;  
5         sending said recorded modifications to said common data source; and  
6         storing changes in said associations with respect to said modifications.
- 1    12. A method for a common data source that is accessible by more than one client to update  
2    at least one of said clients that stores a local version of said common data source, said  
3    common data source having data items and associations between data items, comprising:  
4         detecting data items missing from said local version;  
5         sending said missing data items to said local version; and  
6         updating said missing data items and associations with said missing data items in  
7         said local version.
- 1    13. The method of claim 12 further comprising:  
2         detecting whether more than one of said clients each attempted to send to the  
3         common data source the same data item under different identifiers.
- 1    14. The method of claim 12 further comprising:  
2         detecting whether more than one of said clients each attempted to send to the  
3         common data source different data items under the same identifier.

- 1    15. An apparatus for a client to modify the display of indicia of at least a first data item and a  
2    second data item and at least one association between those two data items, comprising:  
3        a first repository storing said first data item;  
4        a second repository storing said second data item; and  
5        a third repository storing said association between said first data item and said  
6        second data item.
- 1    16. The apparatus of claim 15, further comprising:  
2        an intermediary receiving a request from said client and providing interface to  
3        said first repository and said second repository.
- 1    17. The apparatus of claim 16, wherein said intermediary causes said display to modify.
- 1    18. The apparatus of claim 16, wherein said intermediary addresses said request to said first  
and second repositories with respect to said first and said second data items, respectively.
- 1    19. The apparatus of claim 17, further comprising:  
2        information that is sent to said intermediary from said first repository or said  
3        second repository relevant to whether the requested modification requires the  
4        display of graphic representations of additional data items associated with said  
5        first data item or said second data item, respectively.
- 1    20. The apparatus of claim 17, further comprising:  
2        information that is requested from said third repository relevant to whether the  
3        requested modification requires the display of any associations between any data  
4        items from the first repository with any data items from the second repository.
- 1    21. An apparatus for a client to modify the display of indicia of at least a first data item and a  
2    second data item and at least one association between those two data items, comprising:  
3        a first server storing said first data item and a record of said at least one  
4        association; and

5                   a second server storing said second data item and a record of said at least one  
6                   association.

1       22. The apparatus of claim 21, further comprising:  
2                   a request to said first server and said second server for information relevant to  
3                   modifying said display.

1       23. A method of associating a display of more than one items of content in conjunction with  
2                   a display of an indication of a single data item, comprising:  
3                   creating a record of an identity of said data item and an identity of each of said  
4                   more than one items of content with reference to said identity of said data item;  
5                   referencing said record when said data item is selected; and  
6                   displaying indicia of said more than one items of content.

1       24. A method for conveniently emphasizing the display of secondary relationships among  
2                   items of data comprising:  
3                   displaying a first item of data; and  
4                   at least one primary relationship to a second item of data; and  
5                   at least one secondary relationship between said second item of data and a third  
6                   item of data; and  
7                   displaying emphasis upon said second relationship and said third item of data in response  
8                   to interaction with said second item of data.

1       25. The method of claim 24 in which said emphasis is displayed by reducing the emphasis  
2                   displayed with respect to said primary item of data, and said primary relationship.

1       26. The method of claim 24 in which said emphasis is displayed by increasing the emphasis  
2                   displayed with respect to said secondary relationship and said third item of data.